



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/661,806	09/14/2000	Tsuyoshi Hasegawa	P19378	1232
7055	7590	10/14/2004	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			CHANG, SUNRAY	
			ART UNIT	PAPER NUMBER
			2121	

DATE MAILED: 10/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/661,806

Applicant(s)

HASEGAWA ET AL.

Examiner

Sunray Chang

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date, _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1 – 23 are presented for examination.

Claims 1 – 23 are rejected.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1 – 23 are rejected** under 35 U.S.C. 102(e) as being anticipated by Takashi Iwade et al. (U.S. Patent No. 6,151,026, and referred to as Iwade hereinafter).

3. **Regarding independent claims 1, 2, 6, 11, 15, and 20 – 23**, Iwade teaches,
 - A rendering method for rendering [rendering process, Col. 3, Line 13] a stereo model [three-dimensional polygonal model, Col. 3, Line 29 – 30], arranged in a virtual space [three-dimensional coordinate, Col. 3, Line 22] and composed of a plurality of planes [polygons, Col. 3, Line 23] having faces on the outer side of an object to be expressed [Fig. 3].

Art Unit: 2121

- A computer [image processing apparatus, Col. 3, Line 16], and a computer-readable recording medium [system memory, Col. 3, Line 15] stored with a program [system program, Col. 3, Line 15] to be executed by computer [image processing apparatus, Col. 3, Line 16], wherein program activates computer to execute [activation program, Col. 3, Line 14].
- Acquiring [geometry processor, Col. 3, Line 21] a second stereo model [Model B, Fig. 8A] corresponding to a first stereo model [Model A, Fig. 8A];
- Making a contour drawing model [three-dimensional polygonal model, Col. 3, Line 29 – 30] by reversing [reverses, Col. 5, Line 2] the individual planes of second stereo model [Fig. 8A, 8B, 9A, 9B];
- Arranging contour drawing model [outline process, Col. 3, Line 29] at a position containing first stereo model [Fig. 8A, 8B, 9A, and 9B]; and
- Drawing first stereo model from [rendering processor, Col. 3, Line 33] a predetermined viewpoint position [Fig. 8B and 9A] and drawing only the planes [Fig. 7], as facing viewpoint position [Fig. 8B and 9A], of contour drawing model [rendering of a model, Col. 3, Line 34] in a predetermined color [shading, Col. 3, Line 35].

4. **Regarding dependent claims 3, 12, and 16,**

- Acquiring a contour drawing model [Model B, Fig. 8A, 8B, 9A, and 9B] corresponding to and larger than stereo model [Model A, Fig. 8A, 8B, 9A, and 9B] and having sides reversed [reverses, Col. 5, Line 2] at its planes corresponding to the individual planes of stereo model [Fig. 8A, 8B, 9A, and 9B].

5. **Regarding dependent claims 4 and 13,**

- Acquiring a contour drawing model [Model B, Fig. 8A, 8B, 9A, and 9B] corresponding to stereo model [Model A, Fig. 8A, 8B, 9A, and 9B], having sides reversed [reverses, Col. 5, Line 2] at its planes corresponding to the individual planes of stereo model and [Fig. 7] having vertexes corresponding to the individual vertexes of the planes [Fig. 7] composing stereo model and set in the normal directions of individual vertexes [Fig. 7, Fig. 8A, 8B, 9A, and 9B].

6. **Regarding dependent claims 5 and 14,**

- Acquiring a contour drawing model [Model B, Fig. 8A, 8B, 9A, and 9B] corresponding to stereo model [Model A, Fig. 8A, 8B, 9A, and 9B], mapped with a texture having a pattern [Fig. 7] containing a change in brightness [Fig. 10 and Fig. 11] or transparency [Col. 4, Line 23], and having sides reversed [reverses, Col. 5, Line 2] at its planes corresponding to the individual planes of stereo model [Fig. 7].

7. **Regarding dependent claims 7 and 17,**

- Enlarging the size of acquired contour drawing model and arranging contour drawing model at a position containing stereo model [Fig. 7].

8. **Regarding dependent claim 8,**

- Enlarging the size of contour drawing model [Fig. 7] by moving the individual vertexes of the planes composing acquired contour drawing model [Fig. 8A], in the normal directions of individual vertexes [Fig. 8A and 8B].
- Arranging enlarged contour drawing model [Model B, Fig. 7], at the position containing stereo model [Model A, Fig. 7].

9. **Regarding dependent claims 9 and 18,**

- Reducing the size of stereo model [hidden surface removal process, Col. 3, Line 35] and arranging contour drawing model [Model B, Fig. 7] at the position containing stereo model [Model A, Fig. 7].

10. **Regarding dependent claims 10 and 19,**

- Drawing stereo model [Model B, Col. 8B] from the predetermined viewpoint position [Fig. 8] and drawing the planes [Fig. 7], as on the back of viewpoint position [Fig. 8], of contour drawing model [Model B, Col. 8B] by mapping only planes with a texture having a pattern [Fig. 7] containing a change in brightness [Fig. 10 and Fig. 11] or transparency [Col. 4, Line 23].

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Peercy et al. (U.S. Patent No. 5,880,736) discloses a shading, a computer graphic display, and a vector.

Art Unit: 2121

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sunray Chang whose telephone number is 703-305-8744 or after October 12, 2004 at (571) 272-3682. The examiner can normally be reached on M-F 7:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on (703)308-3179 or after October 12, 2004 at (571) 272-3687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-746-3506.

Sunray Chang
Patent Examiner
Group Art Unit 2121
Technology Center 2100
U.S. Patent and Trademark Office

October 6, 2004



Anthony Knight
Supervisory Patent Examiner
Group 3600